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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/535,372	05/19/2005	Hansjorg Grutzmacher	CO/2-22806/PCT	1629

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EXAMINER

NWAONICHA, CHUKWUMA O

ART UNIT	PAPER NUMBER
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1621

DATE MAILED: 09/15/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

**Office Action Summary**

Application No.

10/535,372

Applicant(s)

GRUTZMACHER ET AL.

Examiner

Chukwuma O. Nwaonicha

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --  
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 19 May 2005.
- 2a) ☐ This action is FINAL. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☐ Claim(s) \_\_\_\_\_ is/are pending in the application.  
4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☒ Claim(s) 6-9 is/are allowed.
- 6) ☒ Claim(s) 1-5, 10 and 11 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).  
a) ☒ All b) ☐ Some \* c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- \* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)  
Paper No(s)/Mail Date \_\_\_\_\_.
- 4) ☐ Interview Summary (PTO-413)  
Paper No(s)/Mail Date. \_\_\_\_\_.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: \_\_\_\_\_.

**DETAILED ACTION**

***Current Status***

1. Claims 1-11 are pending in the application.

***Priority***

Acknowledgment is made of applicant's claim for foreign priority under 35 U.S.C. 119(a)-(d).

***Claim Rejections - 35 USC § 102***

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(a) the invention was known or used by others in this country, or patented or described in a printed publication in this or a foreign country, before the invention thereof by the applicant for a patent.

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

**Claims** 1-5, 10 and 11 are rejected under 35 U.S.C. 102(a) as being anticipated by Schisler et al., {Synthesis, Properties and Structure and Reactivity of Sodium 2,3,4,5-Tetra-tert-Butylcyclopentaphosphanide, Phosphorus, Sulfur and Silicon, 2002, Vol. 177, 1447-1450}.

Schisler et al. disclose applicants claimed process with alkali metal. See pages 1448.

**Claims** 1-5, 10 and 11 rejected under 35 U.S.C. 102(b) as being anticipated by Goerlich et al., {Tris-1-Adamantylcyclotriphosphine and Tetrakis-1-

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Adamantylcyclotetraphosphine: Two Peradamantylated Examples from the Cyclopolyphosphine Series (RP)<sub>n</sub>, Zeitschrift Fuer Anorganische und Allgemeine Chemie, 1994, 620 (1), 173-176}.

Goerlich et al. disclose applicants claimed process with alkali metal. See Abstract.

**Claims** 1-5, 10 and 11 rejected under 35 U.S.C. 102(b) as being anticipated by Diemert et al., {Organophosphorus Compounds. XXIII. Alkenyl Substituted Amino- or Halophosphines and Attempts to Trap Phosphinidene Intramolecularly, Phosphorus and Sulfur and Related Elements, 1986, 26 (3), 307-320}.

Diemert et al. disclose applicants claimed process with alkaline earth metal. See Abstract.

**Claims** 1-5, 10 and 11 rejected under 35 U.S.C. 102(b) as being anticipated by Ionkin et al., {Investigation of the Dehalogenation reaction of (2,4-di-tert-butyl-6-methylphenyl)dihalophosphine with Magnesium by Phosphorus-31 CIDNP Methods, Izvestiya Akademi Nauk, Seriya Khimicheskaya, 1992, 3, 726-730}.

Ionkin et al. disclose applicants claimed process with alkaline earth metal. See Abstract.

**Claims** 1-5, 10 and 11 rejected under 35 U.S.C. 102(b) as being anticipated by Borm et al., {Preparation of Three-Membered Phosphorus Containing Ring Ligands from Phosphinidene and Diphosphene Complexes, Journal of Organometallic Chemistry, 1986, 306 (1), 29-38}.

Borm et al. disclose applicants claimed process with alkali metal. See Abstract.

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**Claims** 1-5, 10 and 11 rejected under 35 U.S.C. 102(b) as being anticipated by Rausch et al., {The Synthesis of Metallaindene and Metalafluorene Compounds, Synthesis and Reactivity in Inorganic and Metal-Organic Chemistry, 1985, 15 (7), 923-943}.

Rausch et al. disclose applicants claimed process with lithium. See Abstract.

**Claims** 1-5, 10 and 11 rejected under 35 U.S.C. 102(b) as being anticipated by Jutzi et al., {Pentamethylcyclopentadienyl Substituted Diphosphene, Bicyclo[1.1.0]tetraphosphane Cyclotetraphosphane and cyclotriphosphanes from Dihalo(pentamethylcyclopentadienyl) phosphanes, Journal of Organometallic Chemistry, 1985, 287 (1), C5-C7}.

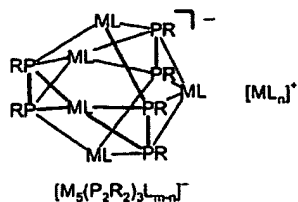
Jutzi et al. disclose applicants claimed process with alkaline earth metal. See Abstract.

### **Allowed Claims**

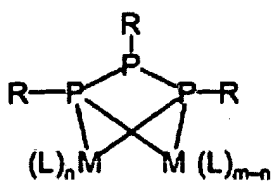
Claims 6-9 are allowable over the prior art of record.

### **Reason For Allowance**

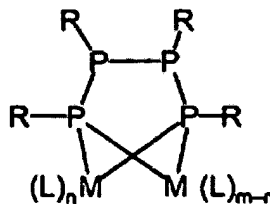
The following is an examiner's statement of reasons for allowance: Applicants claim a di(alkali metal/alkaline earth metal) oligophosphanediide of formula 1, 2 or 3 and the process for the preparation of the same;



formula 1



formula 2



formula 3

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wherein all the variables are as defined in the claims. The compounds were neither found to be obvious nor anticipated by the prior art of record.

A search of the prior art failed to uncover any reference that teaches or motivates one of ordinary skill to disclose the di(alkali metal/alkaline earth metal) oligophosphanediide of formula 1, 2 or 3 and the process for the preparation of the same as claim by applicants.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Chukwuma O. Nwaonicha whose telephone number is 571-272-2908. The examiner can normally be reached on Monday thru Friday, 8:30am to 5:00pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Thurman k. Page can be reached on 571-272-0602. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.


Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Chukwuma O. Nwaonicha, Ph.D.  
Patent Examiner  
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